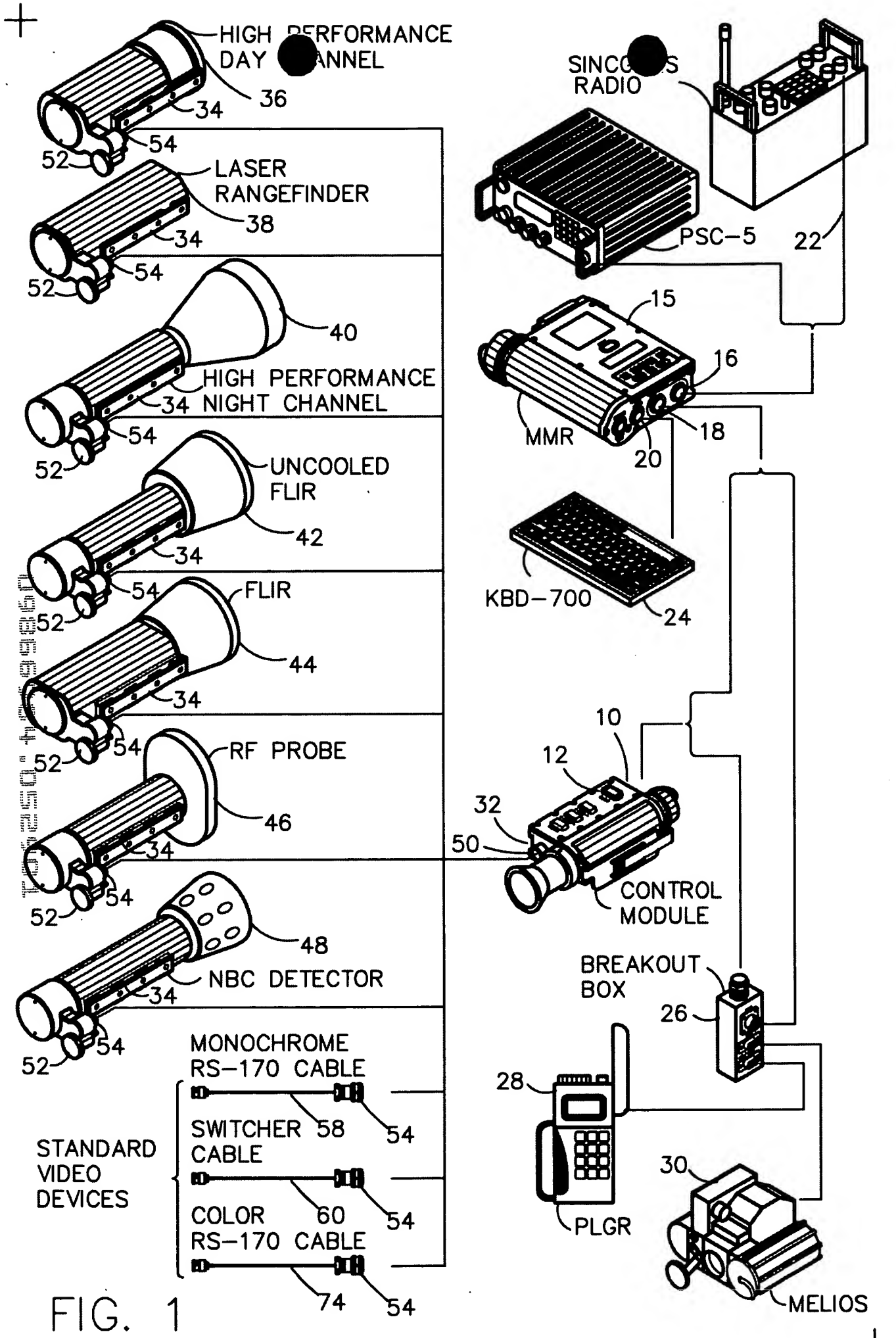

HIGH PERFORMANCE DAY CHANNEL
36
34
54
52
LASER RANGEFINDER
38
34
54
52
40
HIGH PERFORMANCE NIGHT CHANNEL
34
54
52
UNCOOLED FLIR
42
34
54
52
FLIR
44
34
54
52
RF PROBE
46
34
54
52
48
NBC DETECTOR
34
54
52
MONOCHROME RS-170 CABLE
58
54
SWITCHER CABLE
60
54
COLOR RS-170 CABLE
74
54
STANDARD VIDEO DEVICES
SINCGARS RADIO
PSC-5
22
15
16
MMR
18
20
KBD-700
24
10
12
32
50
CONTROL MODULE
BREAKOUT BOX
26
28
PLGR
30
MELIOS

FIG. 1

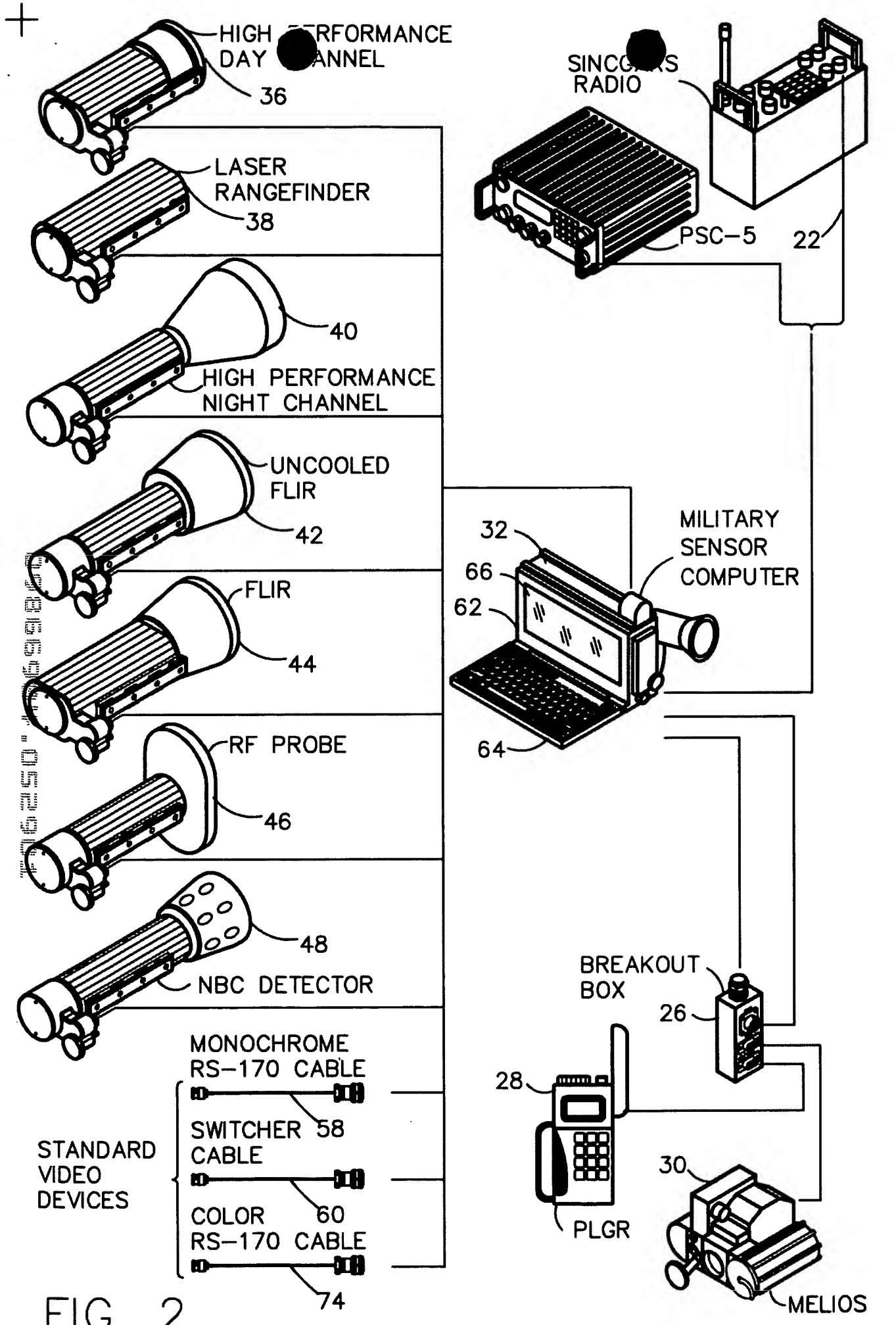

HIGH PERFORMANCE DAY CHANNEL
36
LASER RANGEFINDER
38
40
HIGH PERFORMANCE NIGHT CHANNEL
UNCOOLED FLIR
42
FLIR
44
RF PROBE
46
48
NBC DETECTOR
SINCGARS RADIO
PSC-5
22
32
MILITARY SENSOR COMPUTER
66
62
64
BREAKOUT BOX
26
28
PLGR
30
MELIOS
MONOCHROME RS-170 CABLE
58
SWITCHER CABLE
60
COLOR RS-170 CABLE
74
STANDARD VIDEO DEVICES

FIG. 2

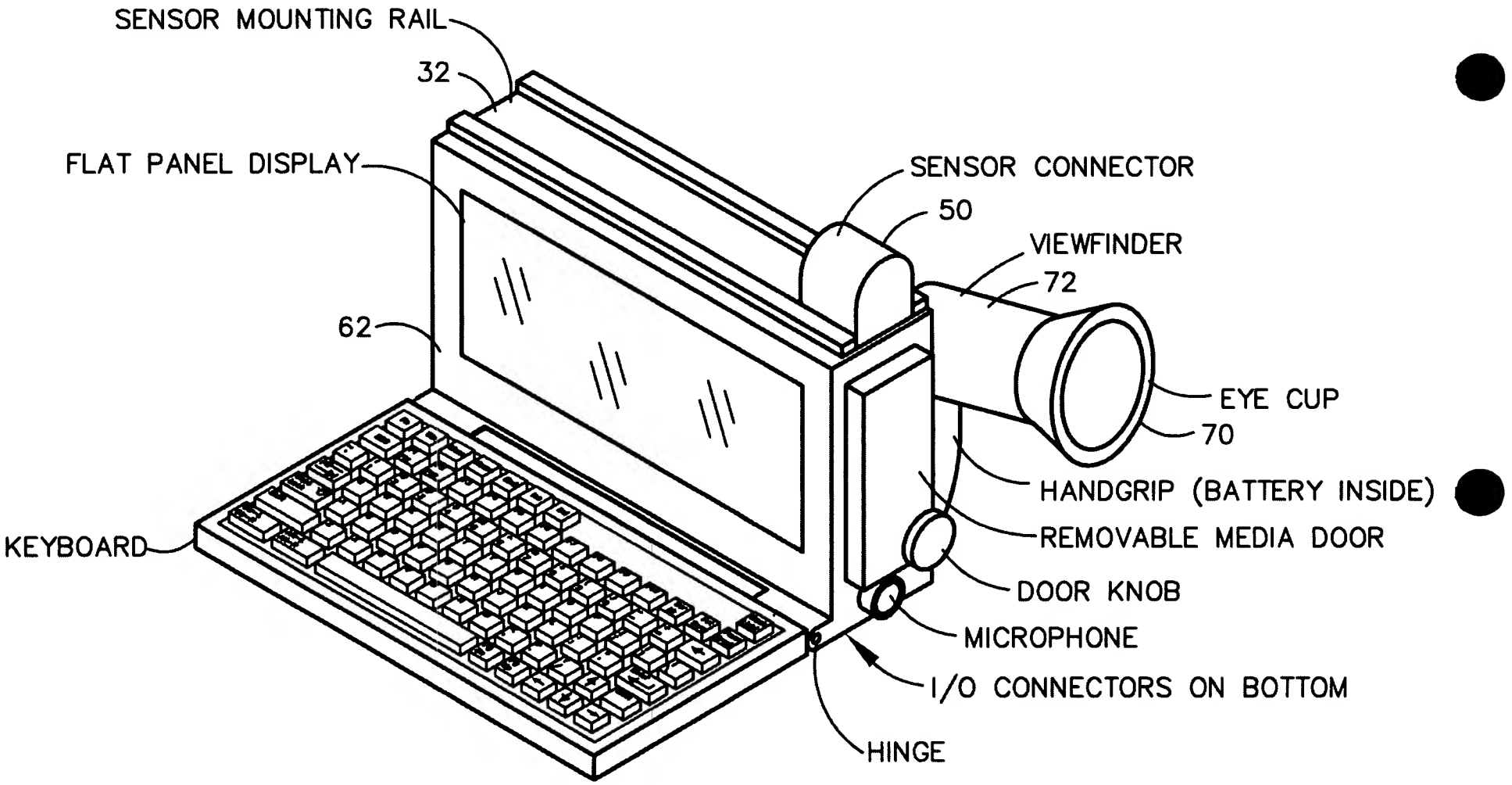


FIG. 3

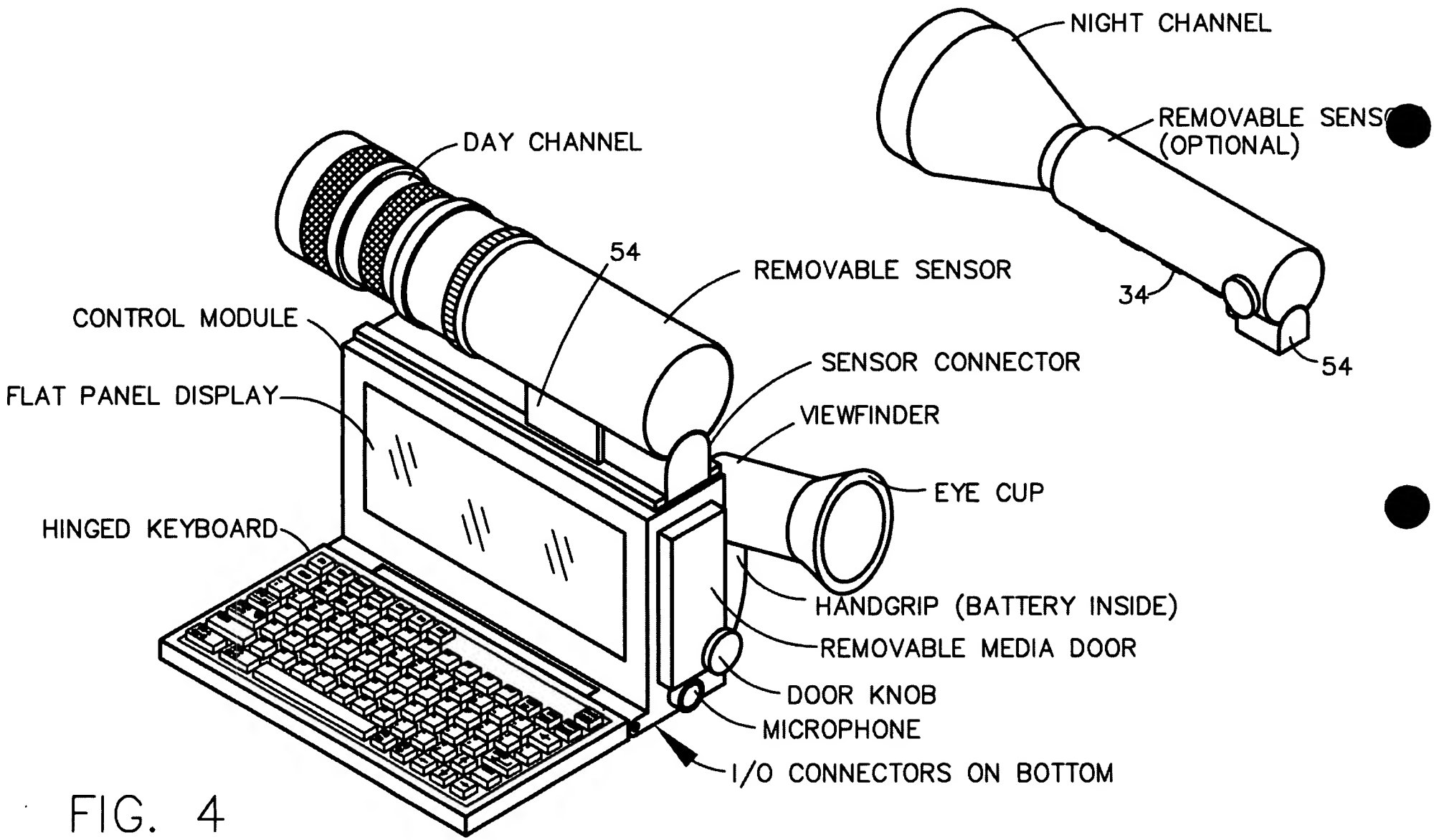


FIG. 4

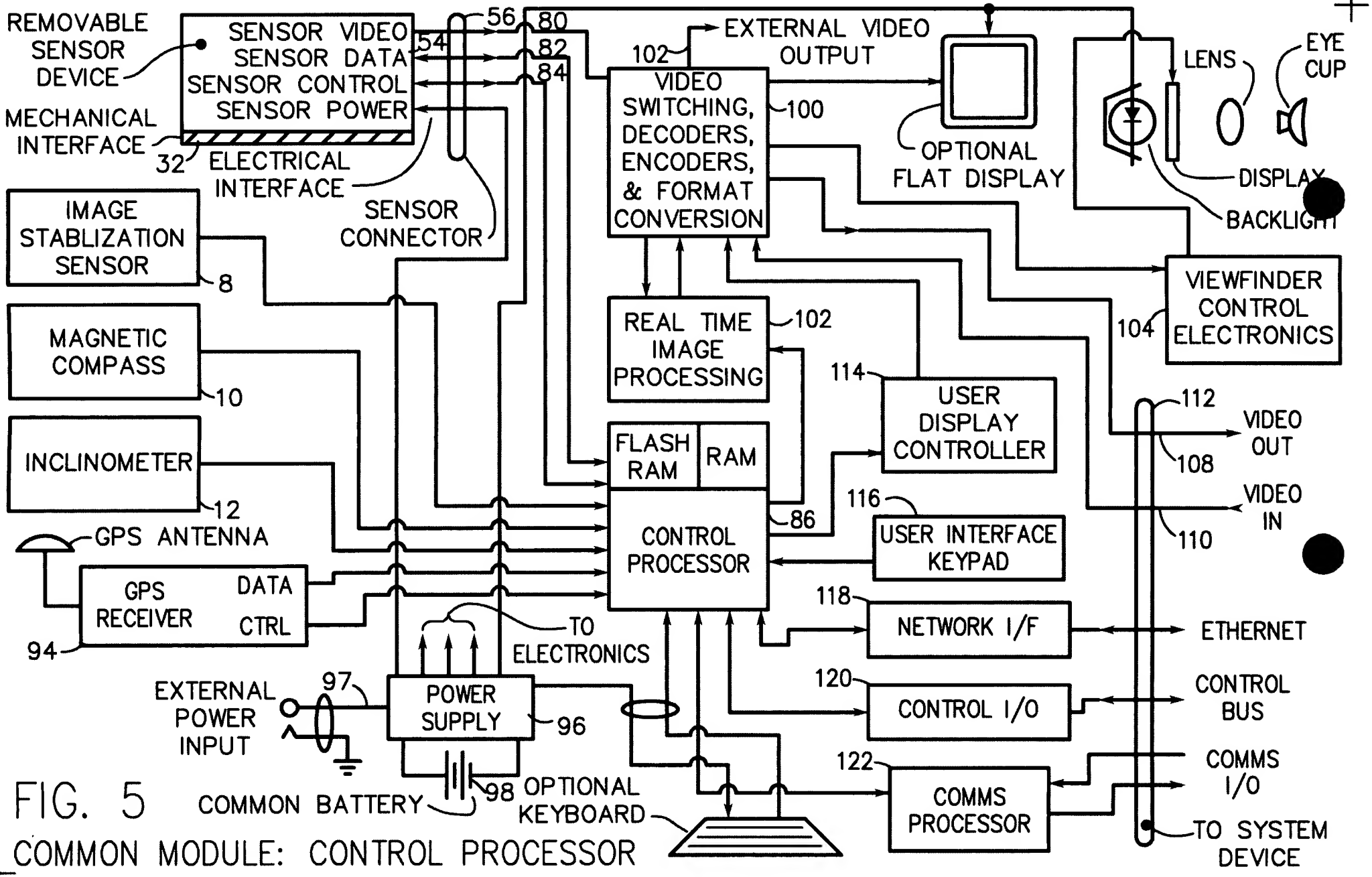


FIG. 5

COMMON MODULE: CONTROL PROCESSOR

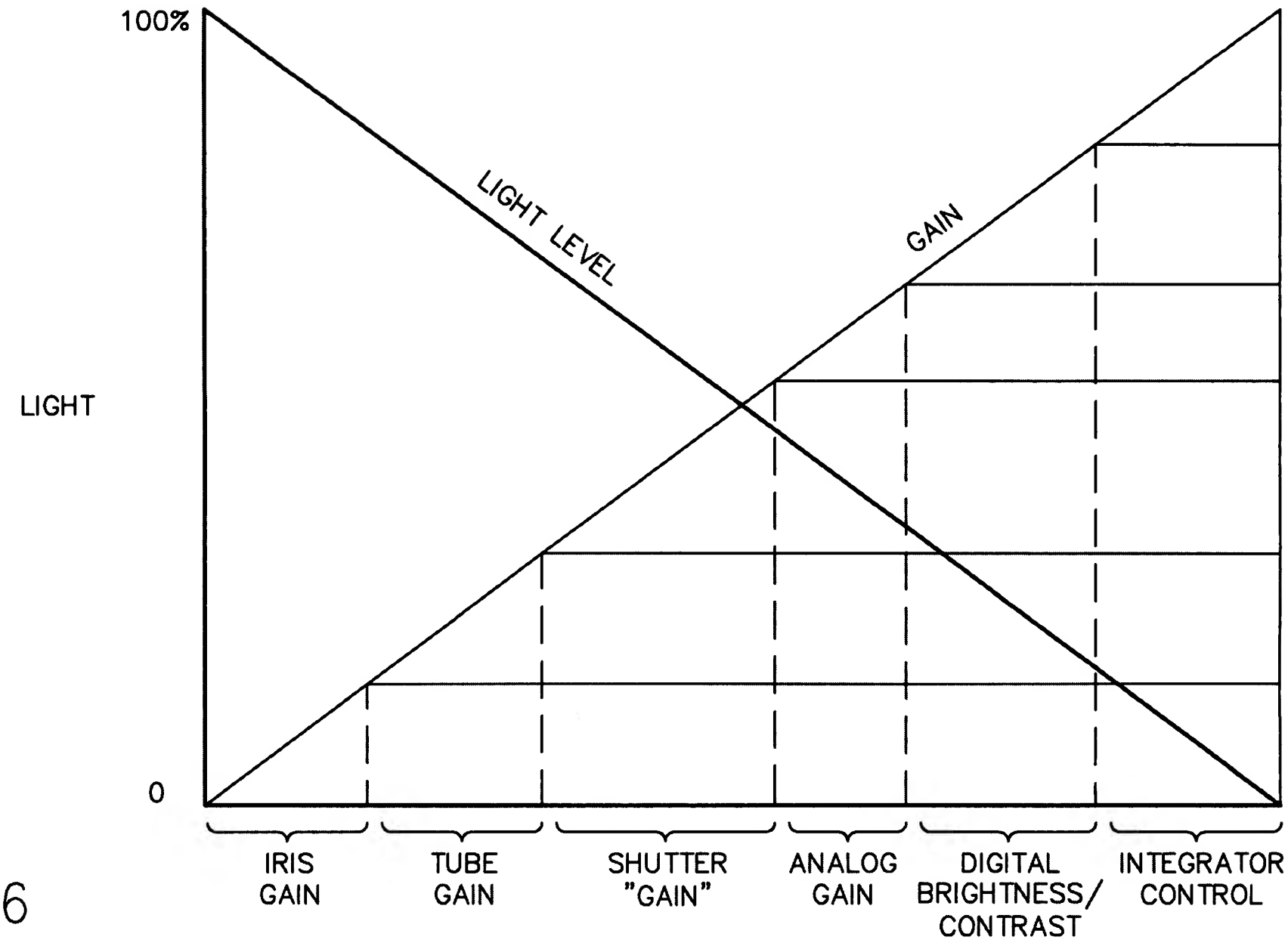


FIG. 6

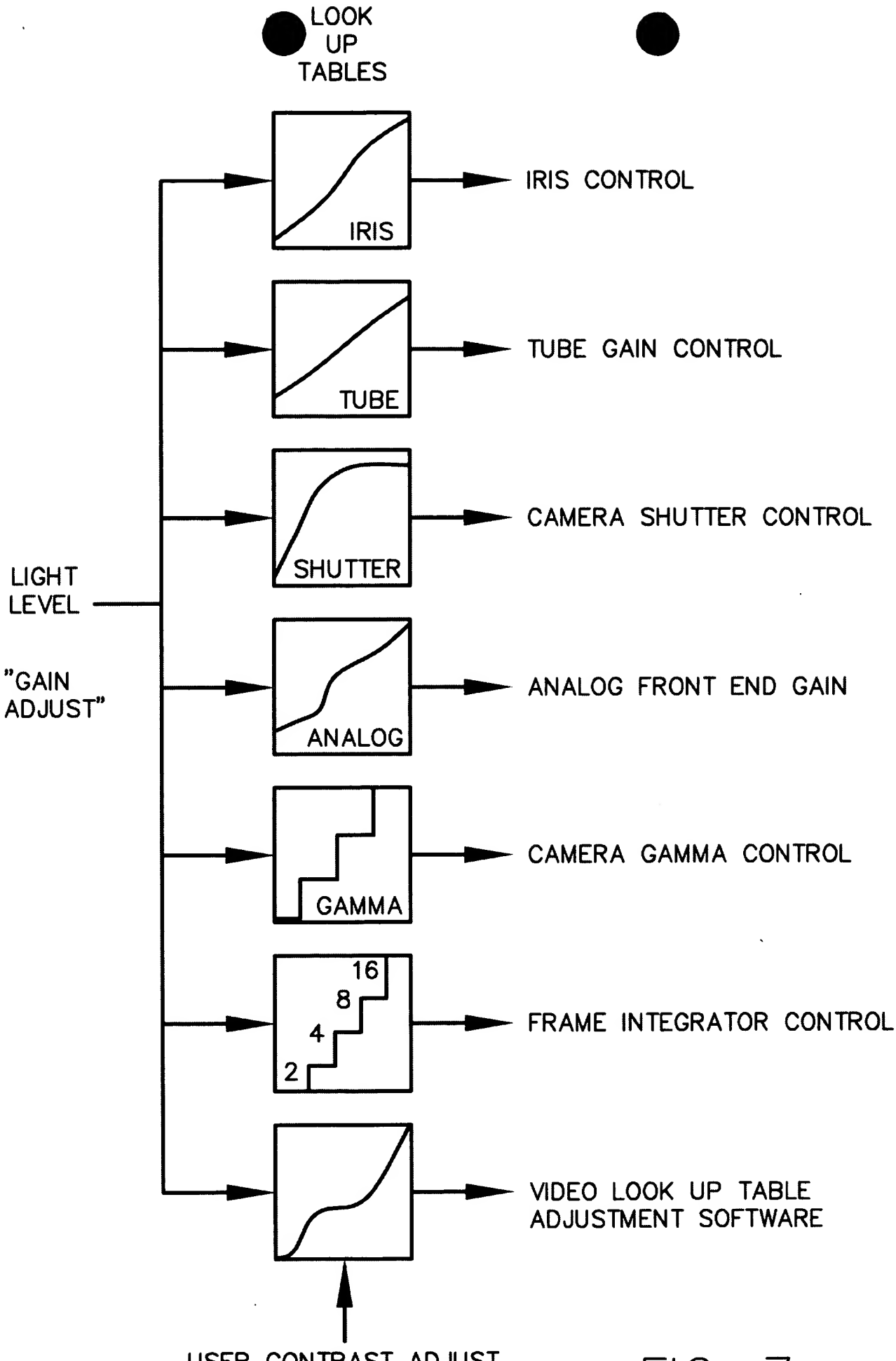


FIG. 7

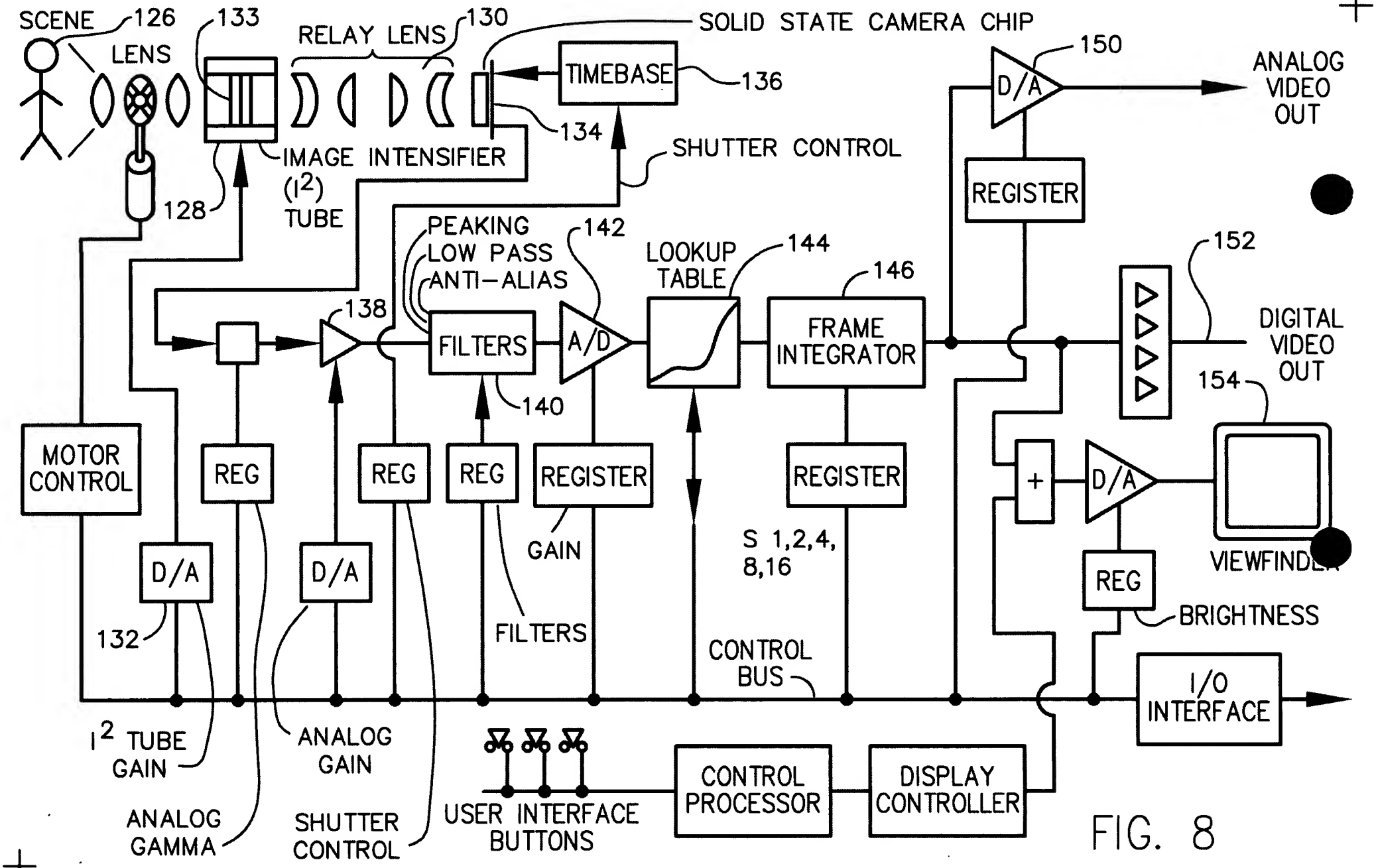

SCENE
126
LENS
133
RELAY LENS
130
SOLID STATE CAMERA CHIP
TIMEBASE
136
134
150
D/A
ANALOG VIDEO OUT
IMAGE INTENSIFIER
(I^2) TUBE
128
SHUTTER CONTROL
REGISTER
PEAKING
LOW PASS
ANTI-ALIAS
142
LOOKUP TABLE
144
146
152
138
FILTERS
A/D
FRAME INTEGRATOR
DIGITAL VIDEO OUT
140
154
MOTOR CONTROL
REG
REG
REG
REGISTER
REGISTER
+
D/A
GAIN
S 1,2,4, 8,16
VIEWFINDER
D/A
D/A
REG
BRIGHTNESS
132
FILTERS
CONTROL BUS
I/O INTERFACE
I^2 TUBE GAIN
ANALOG GAIN
ANALOG GAMMA
SHUTTER CONTROL
USER INTERFACE BUTTONS
CONTROL PROCESSOR
DISPLAY CONTROLLER

FIG. 8

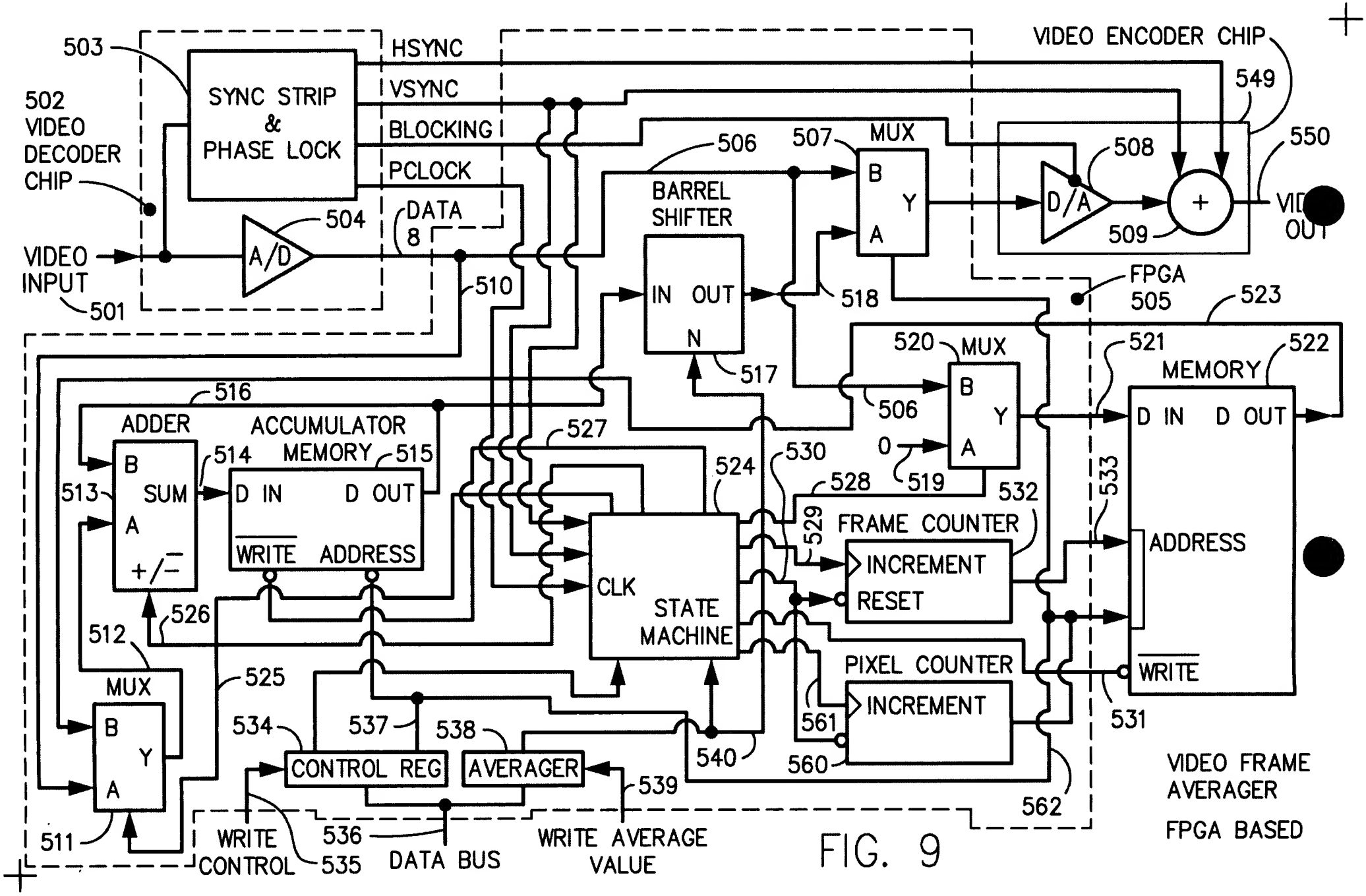
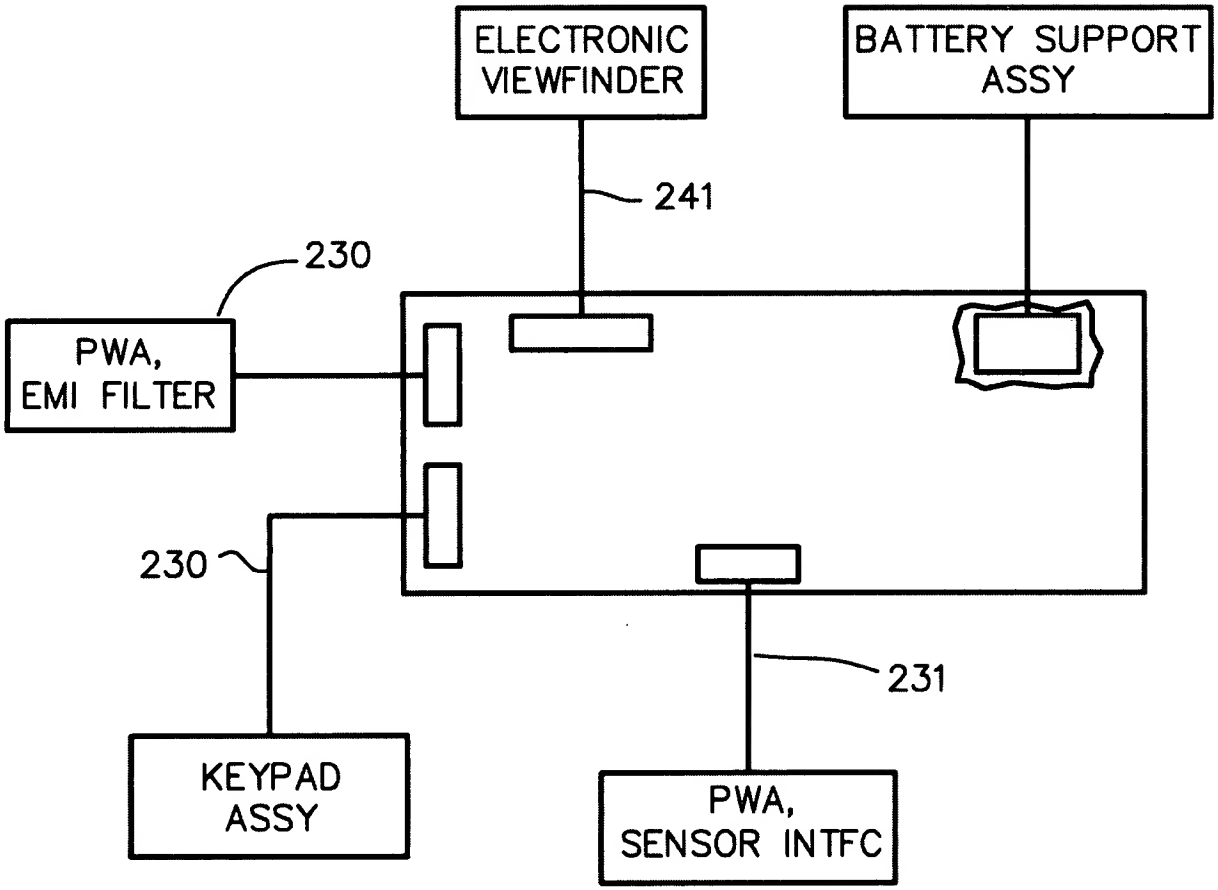


FIG. 9



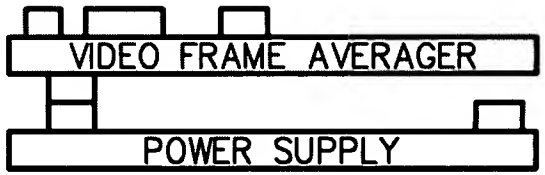
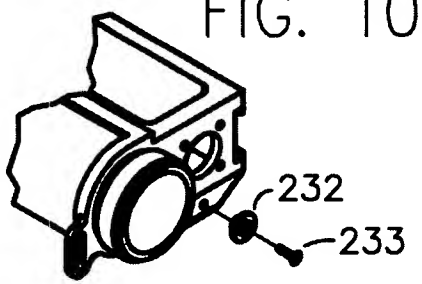
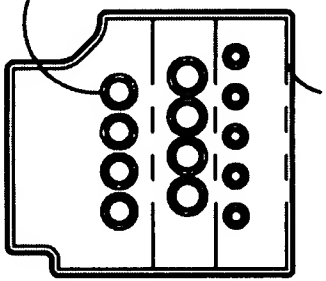


FIG. 10

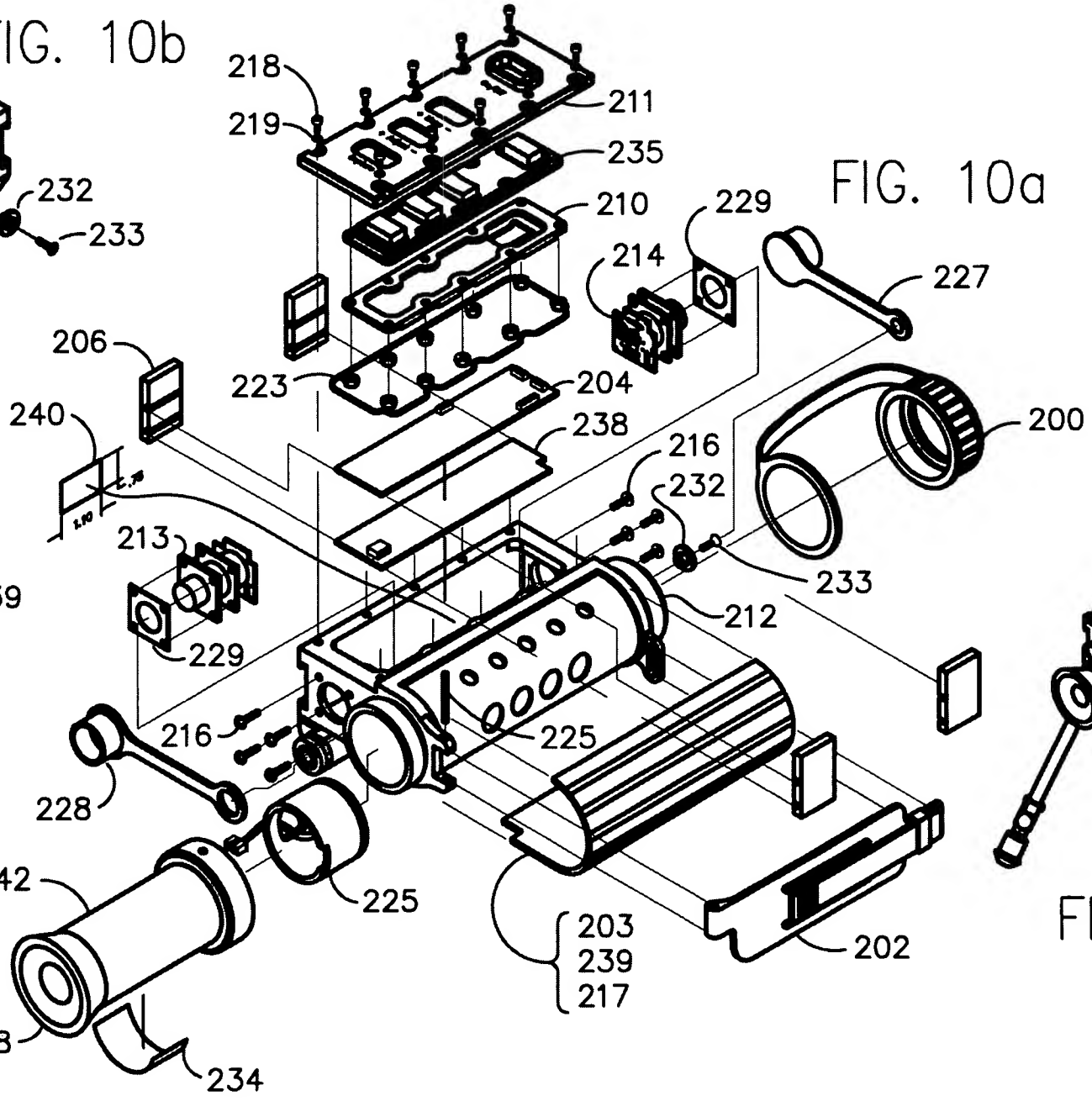
FIG. 10b





ADHESIVE GUIDE FOR APPLICATION OF HAND GRIP

FIG. 10a



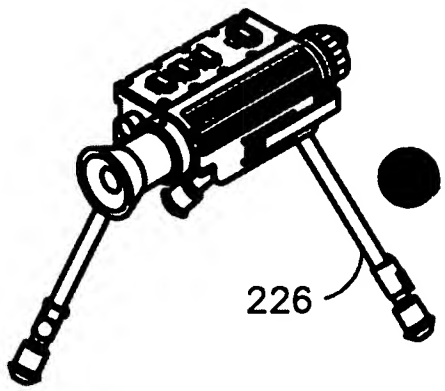


FIG. 10c

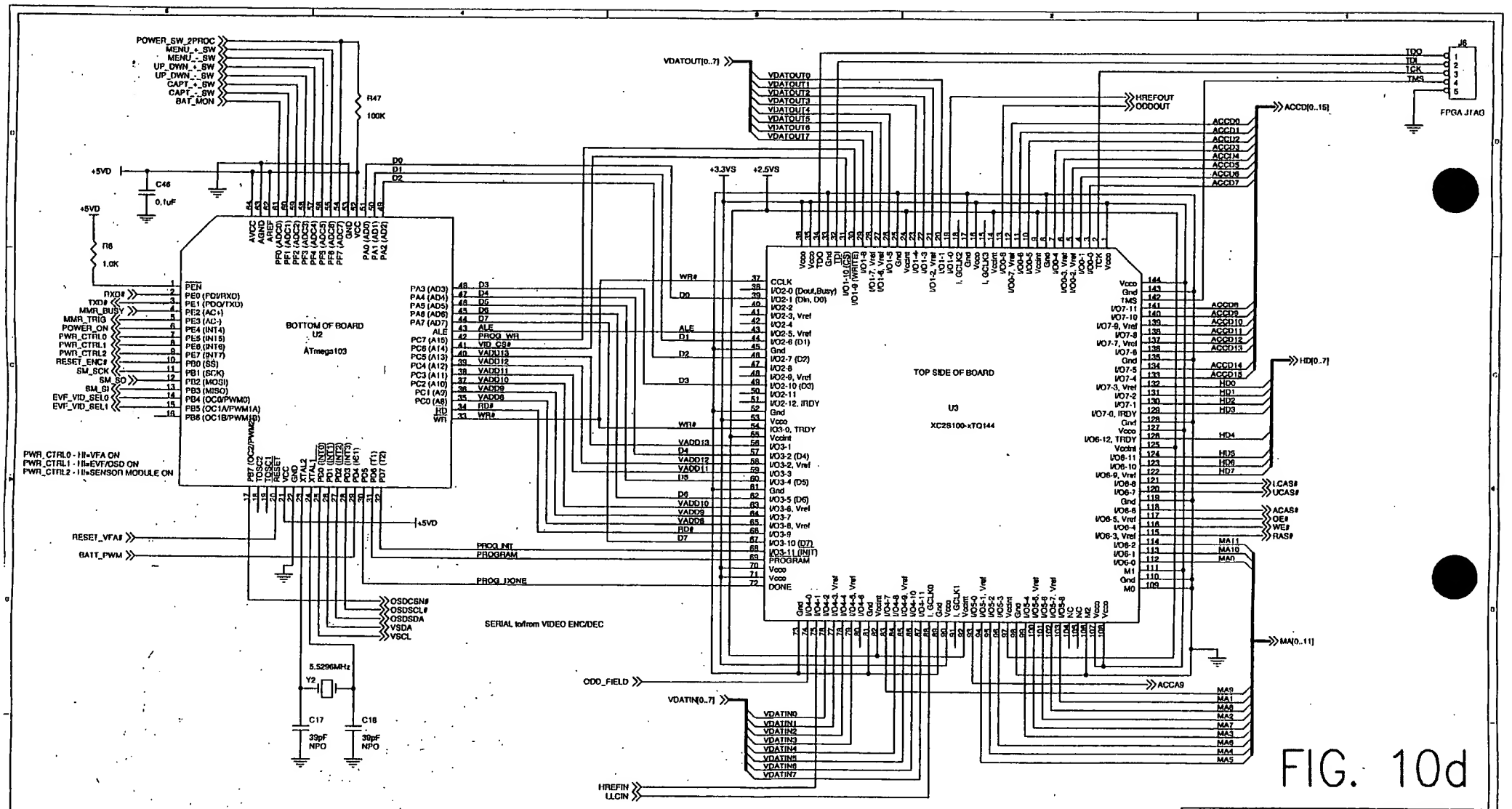


FIG. 10d

E-Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, Texas 78249

Design Engineers: Roger Hecker

Proprietary & Confidential

Project Title: VFA
Drawn By: RHecker
Dwg #: 03-1031-001
Size: A
Page Title: HOST/FPGA
Rev:
Date: Friday, May 18, 2001
Sheet 2 of 7

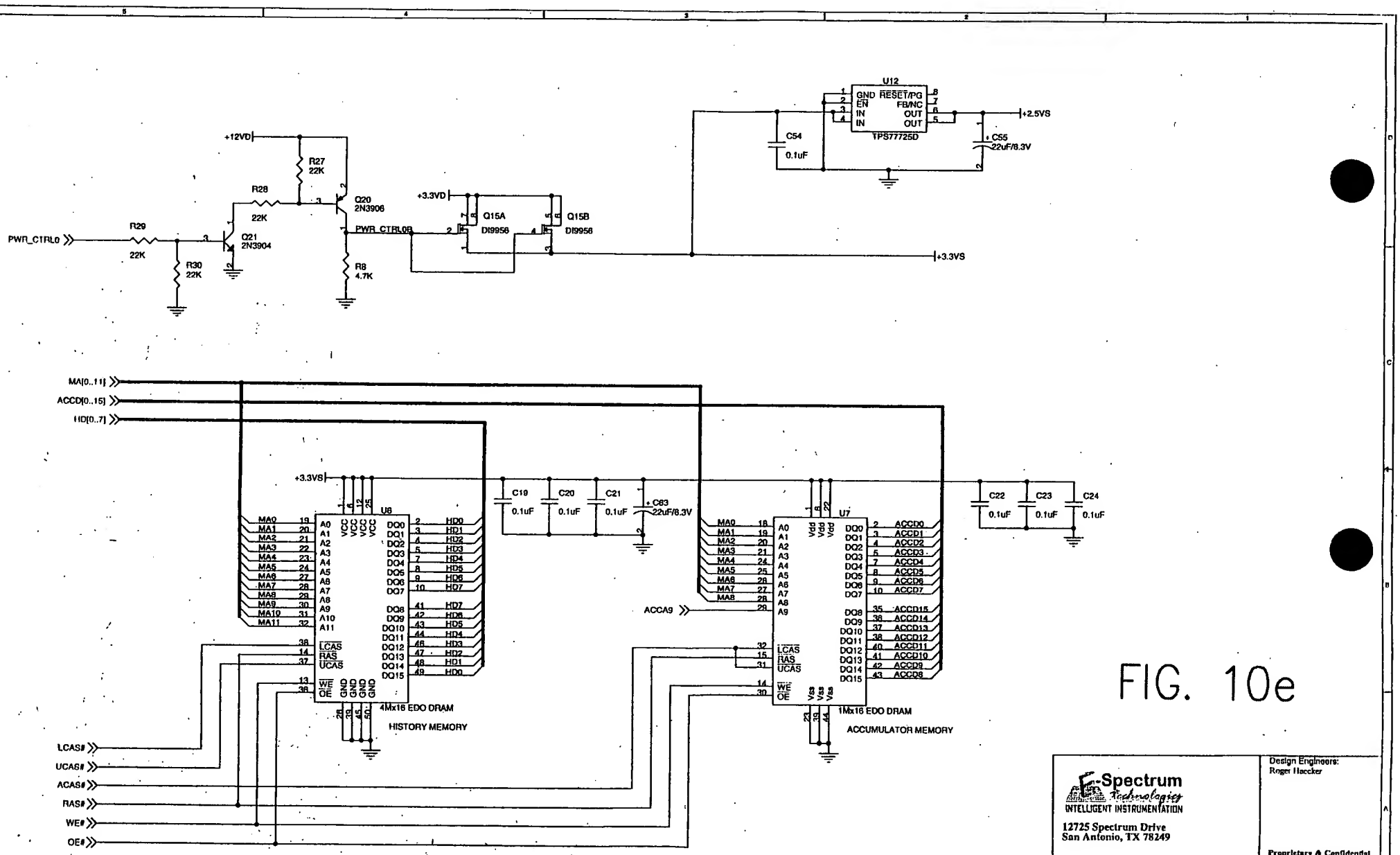


FIG. 10e

Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, TX 78249

Design Engineers: Roger Haecker

Proprietary & Confidential

Project Title: VFA		Drawn By: RHaecker	Dwg #: 03-1031-001
Size: B	Page Title: RAM		Rev: A
Date: Friday, May 18, 2001		Sheet 3 of 7	

T06250 "h869860

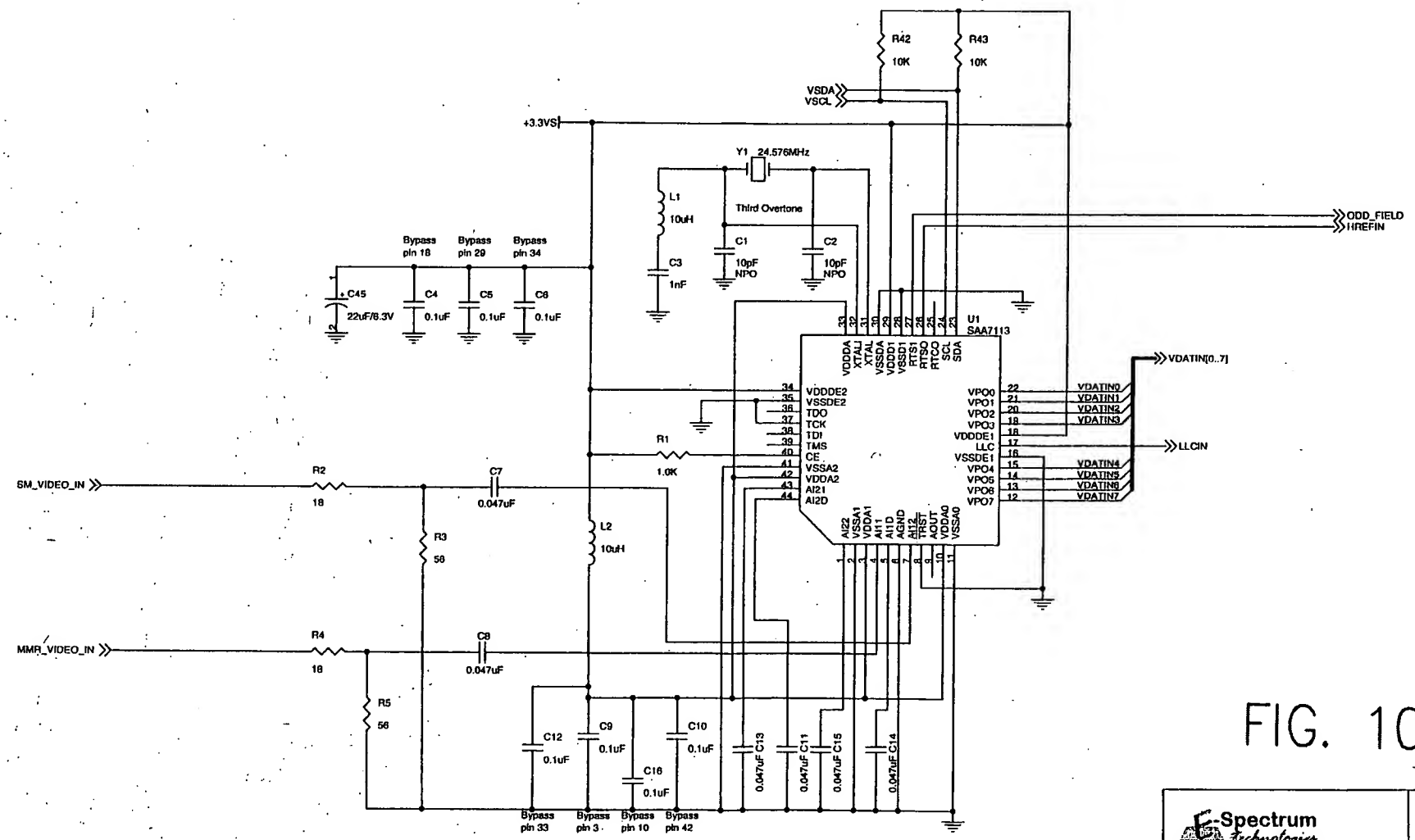


FIG. 10f

E-Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, Texas 78249

Design Engineers:
Roger Haecker

Proprietary & Confidential

Project Title: VFA		Drawn By: RHaecker	Dwg #: 03-1031-001
Size: B	Page Title: VIDEO DECODER		Rev: A
Date: Friday, May 18, 2001	Sheet 4 of 7		

T06250"h8699860

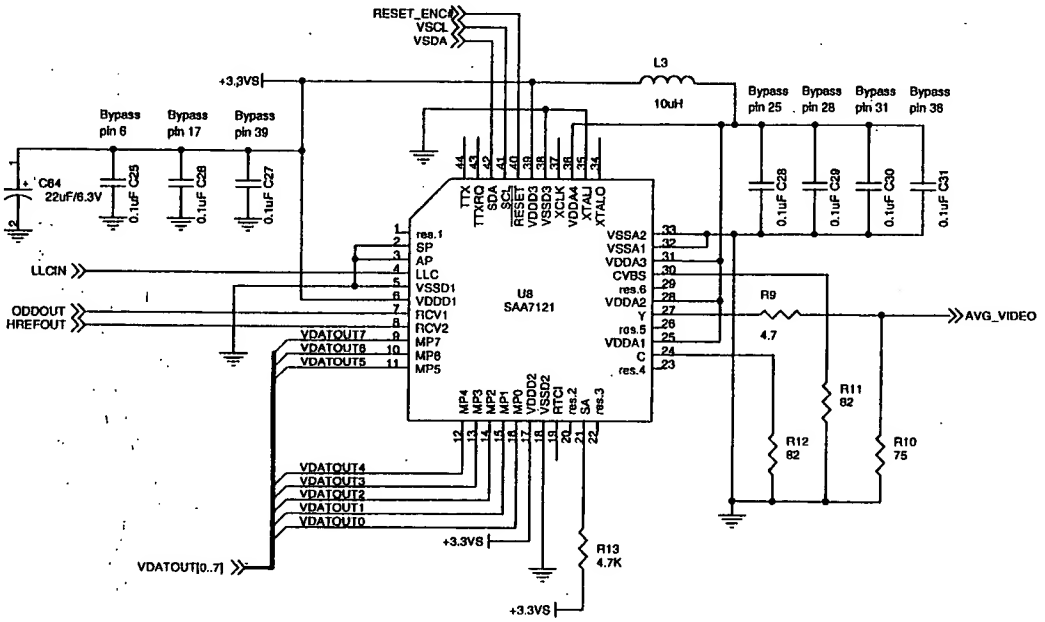


FIG. 10g

E-Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, Texas 78249

Design Engineers:
Roger Hnecker

Proprietary & Confidential

Project Title: VFA		Drawn By: RHnecker	Dwg #: 03-1031-001
Size: B	Page Title: VIDEO ENCODER		Rev: A
Date: Friday, May 18, 2001		Sheet 5 of 7	

T06250"-h869860

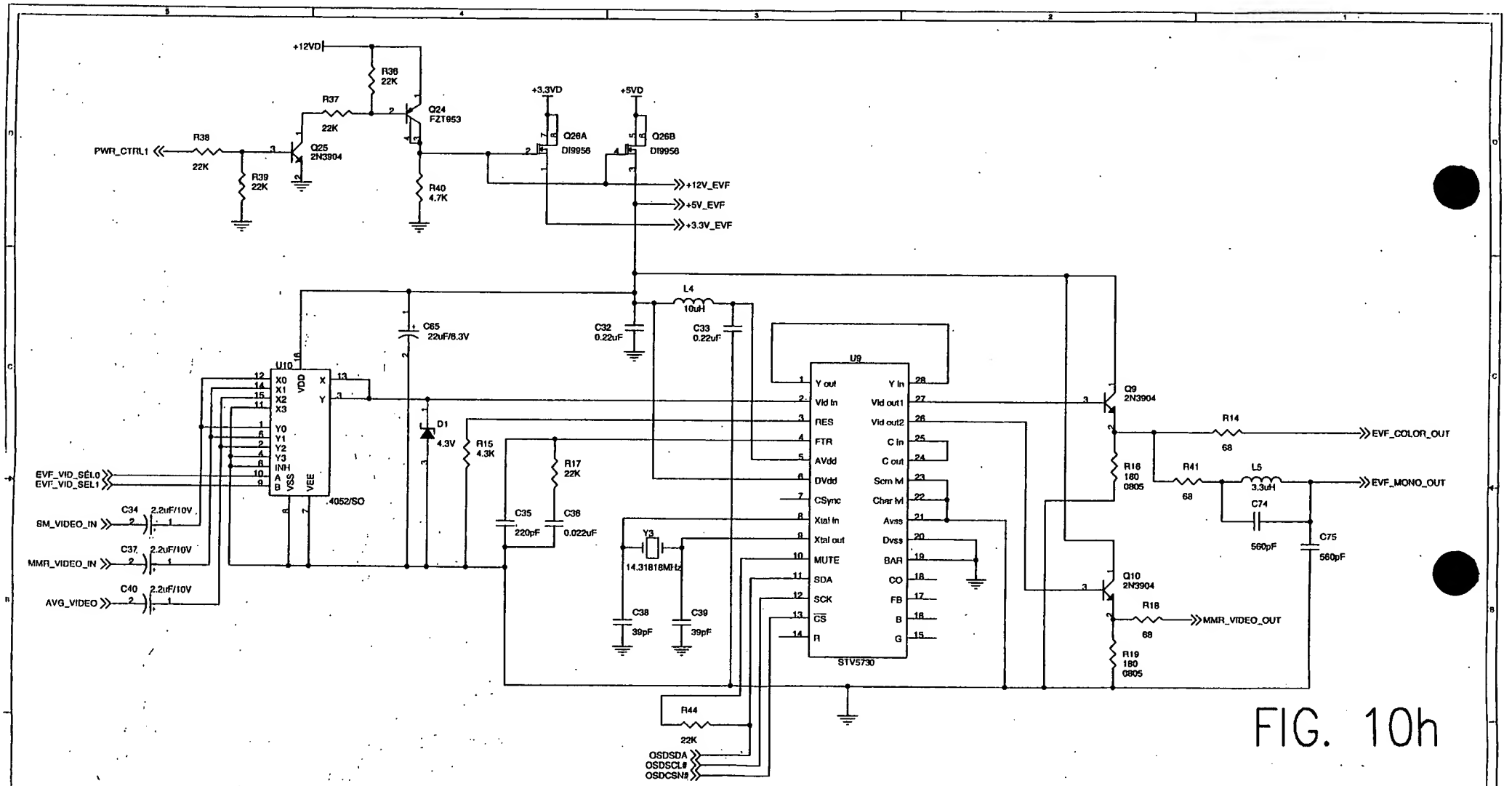


FIG. 10h

E-Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, TX 78249

Design Engineers: Roger Haecker

Proprietary & Confidential

Project Title: VFA		Drawn By: RHaecker	Dwg # 1031-001
Size: B	Page Title: OSD		Rev: A
Date: Friday, May 18, 2001		Sheet 6 of 7	

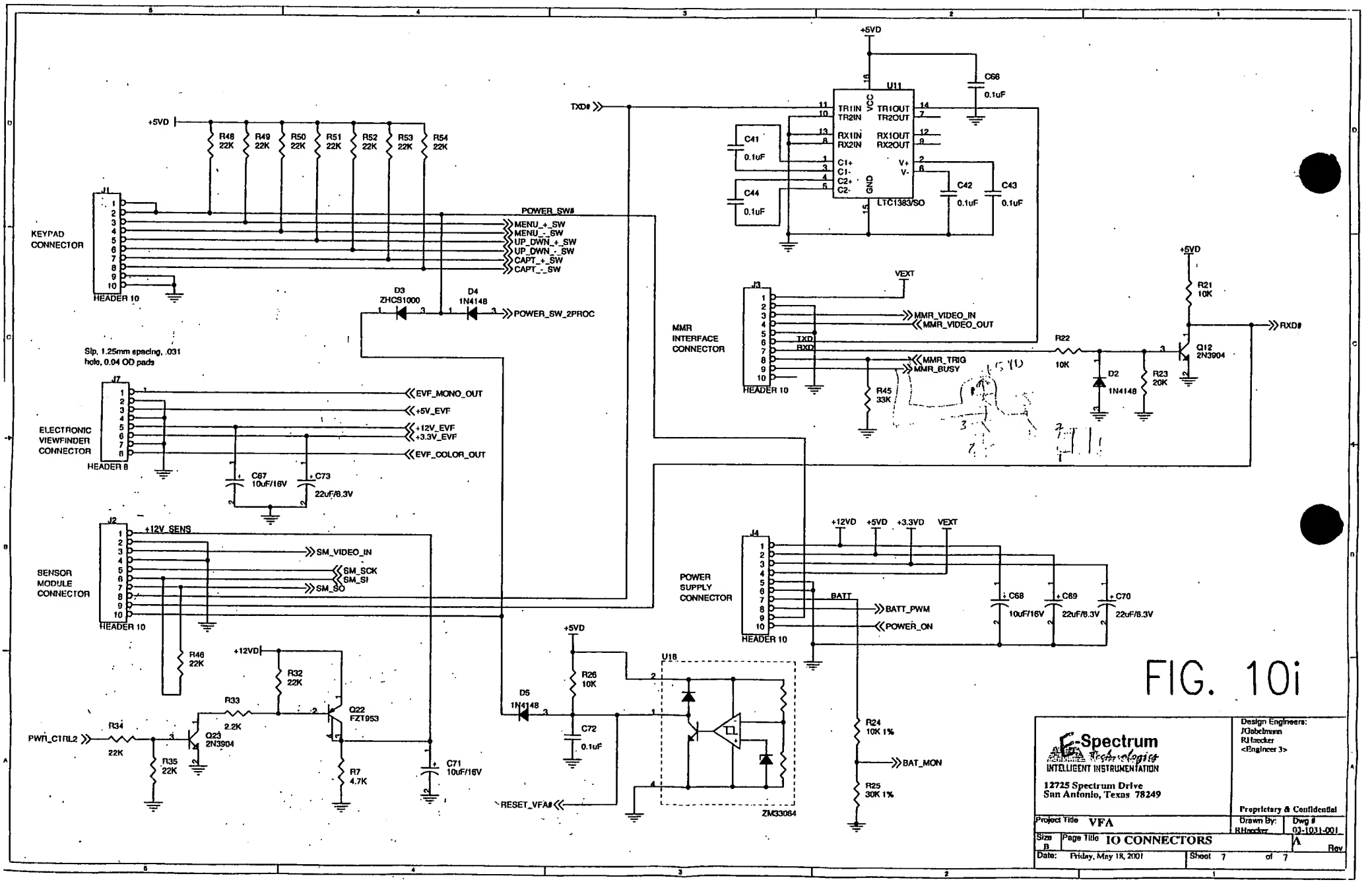


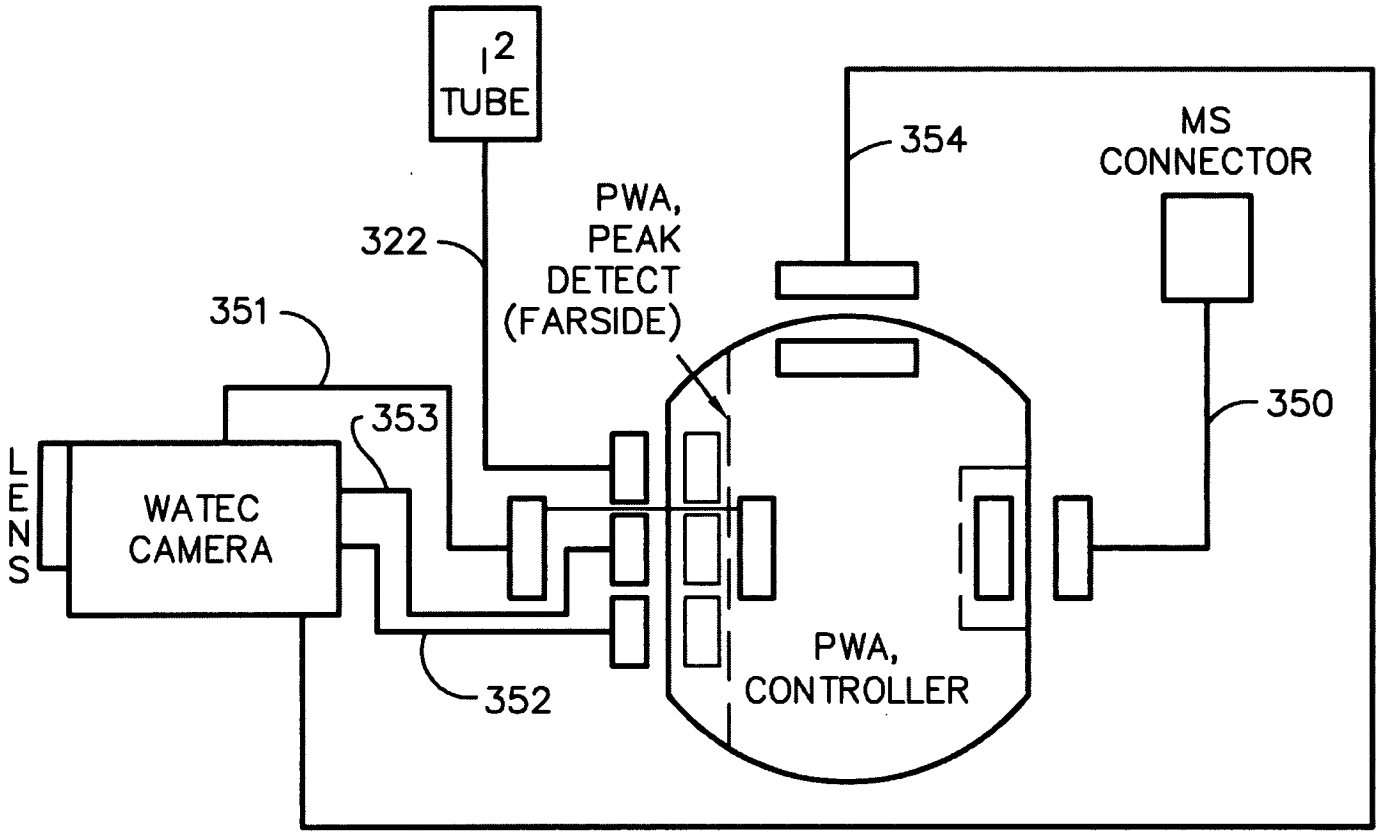
FIG. 10i

E-Spectrum Technologies
INTELLIGENT INSTRUMENTATION
12725 Spectrum Drive
San Antonio, Texas 78249

Design Engineers:
JGabelmann
RHaecker
<Engineer 3>

Proprietary & Confidential

Project Title: VFA		Drawn By: RHaecker	Dwg #: 03-1031-001
Size: B	Page Title: IO CONNECTORS		Rev: A
Date: Friday, May 18, 2001	Sheet 7 of 7		



CONNECTION DIAGRAM

FIG. 11

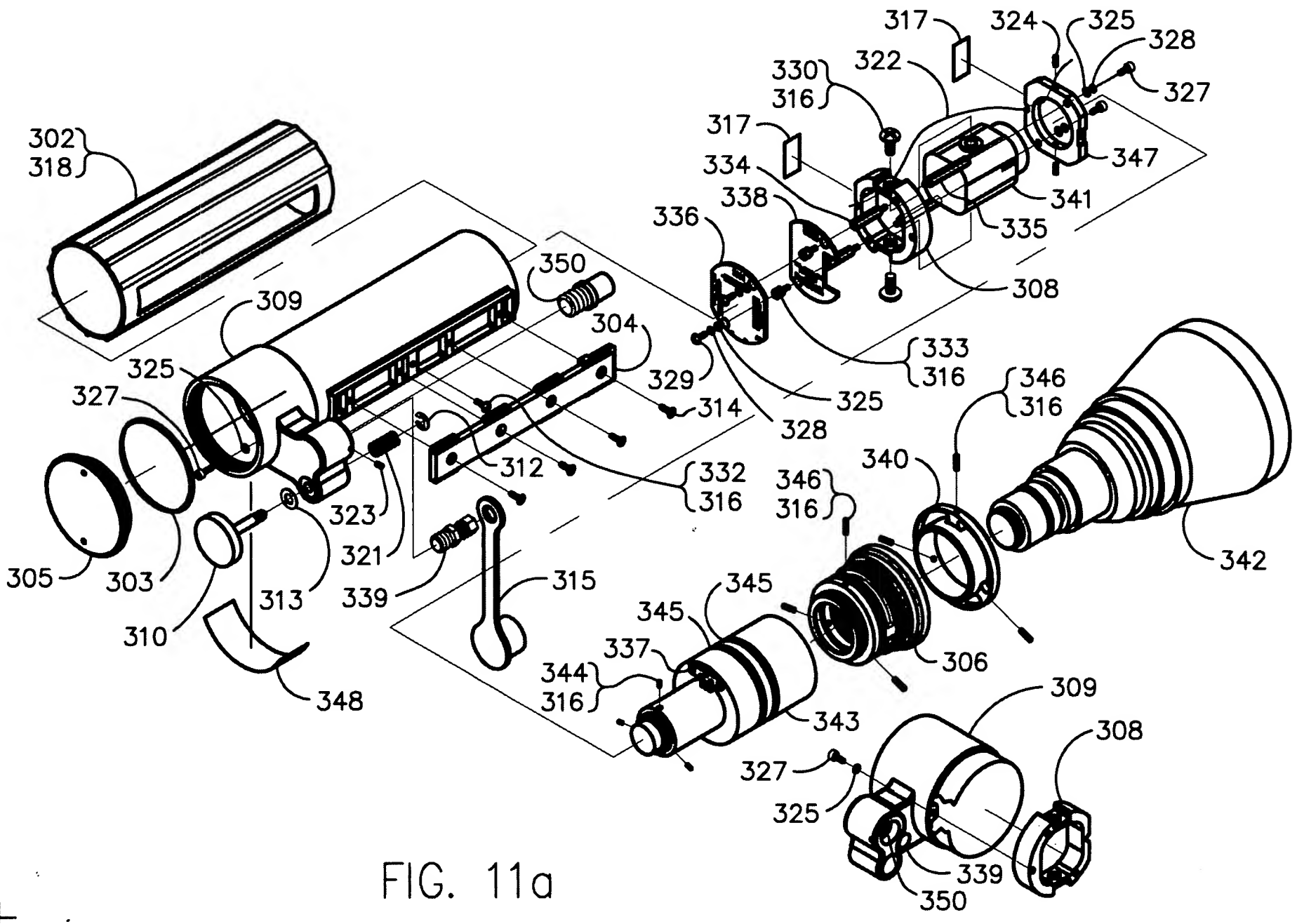


FIG. 11a

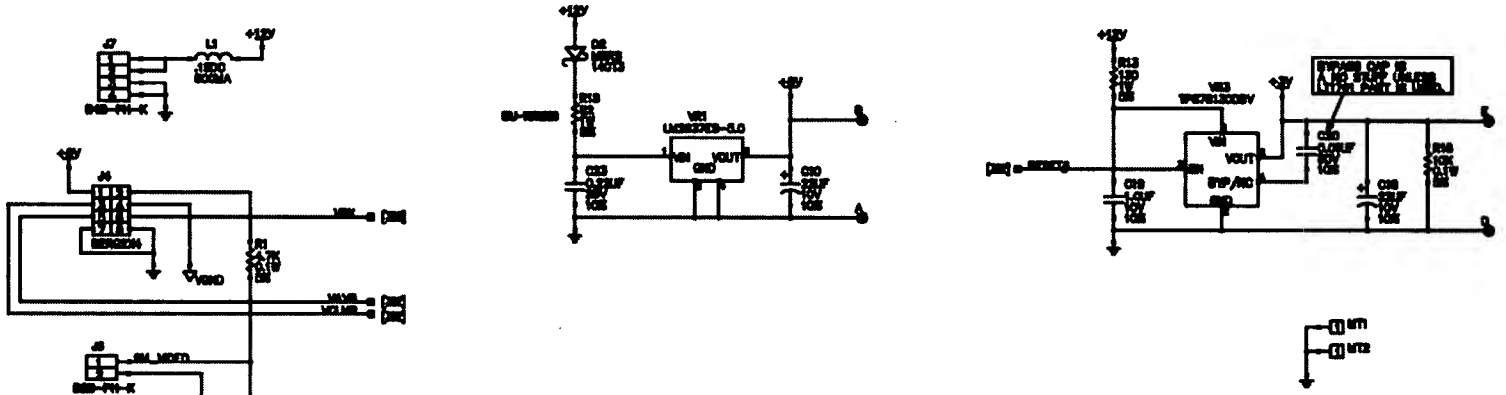


FIG. 11b

IO AND POWER SUPPLY

PhotoTelesis

SCH DIA, CONTROLLER, NIGHT CHANNEL

SCH-9254-001

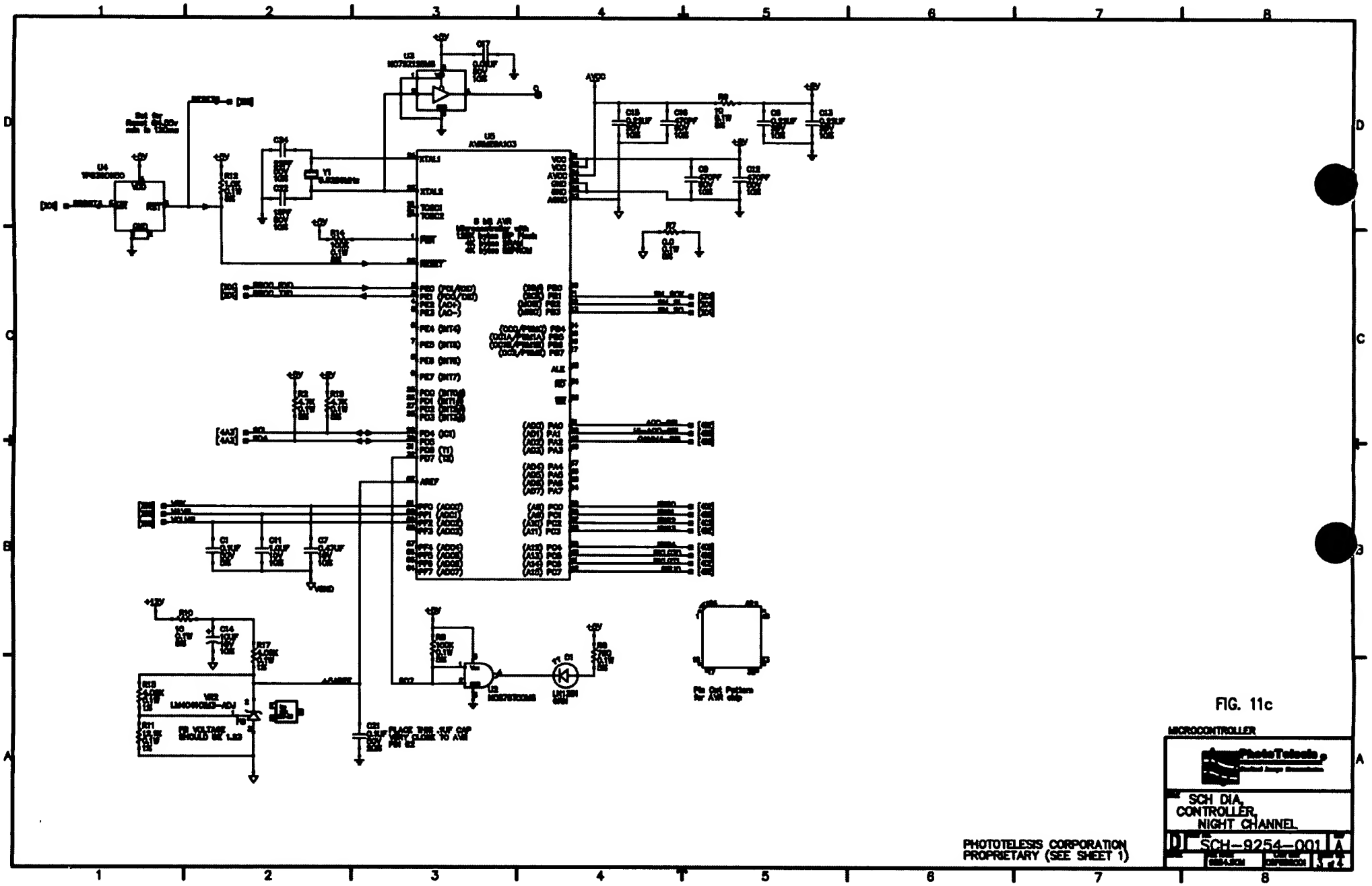


FIG. 11c

PHOTOTELESIS CORPORATION
PROPRIETARY (SEE SHEET 1)

MICROCONTROLLER

PhotoTelesis

SCH DIA,
CONTROLLER,
NIGHT CHANNEL

SCH-9254-001

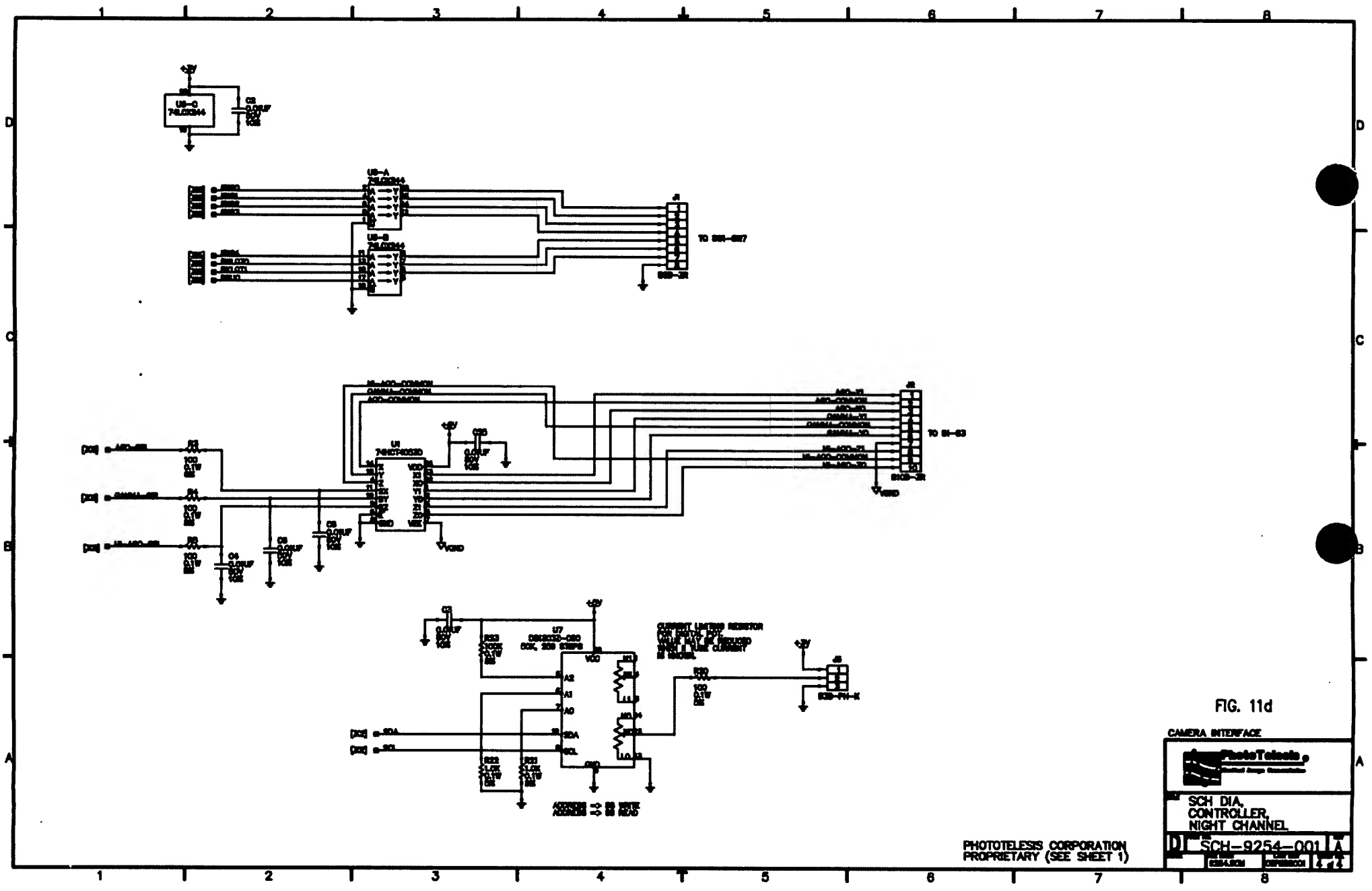


FIG. 11d

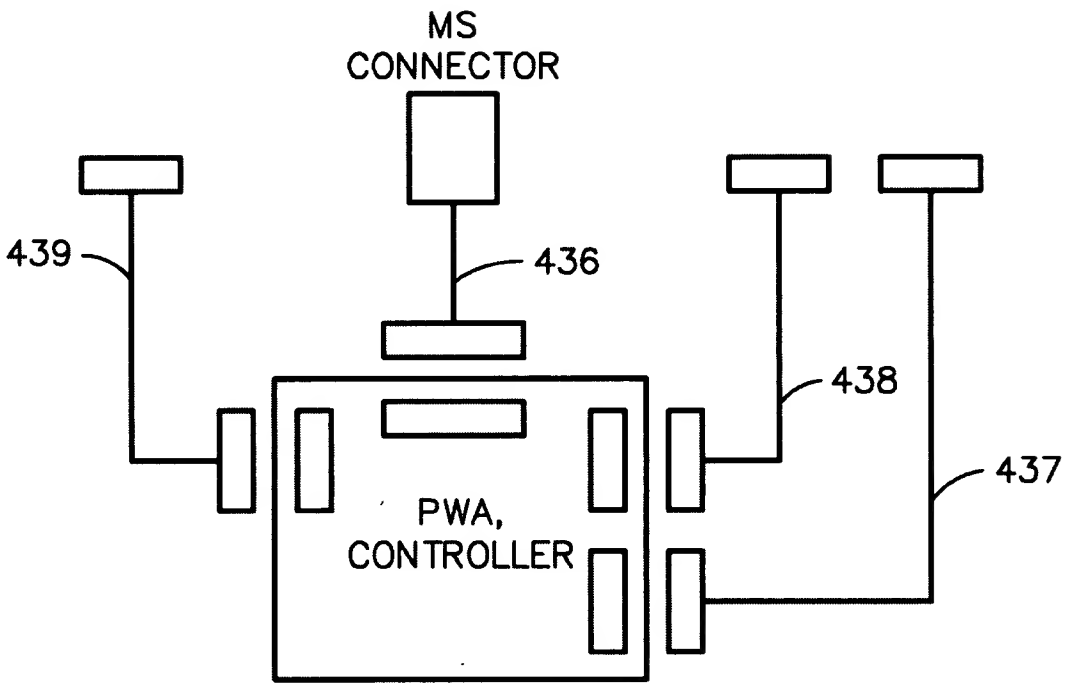
CAMERA INTERFACE

PhotoTelesis

SCH DIA, CONTROLLER, NIGHT CHANNEL

D SCH-9254-001 A

SCALE: NONE | SHEET 4 of 5



CONNECTION DIAGRAM

FIG. 12

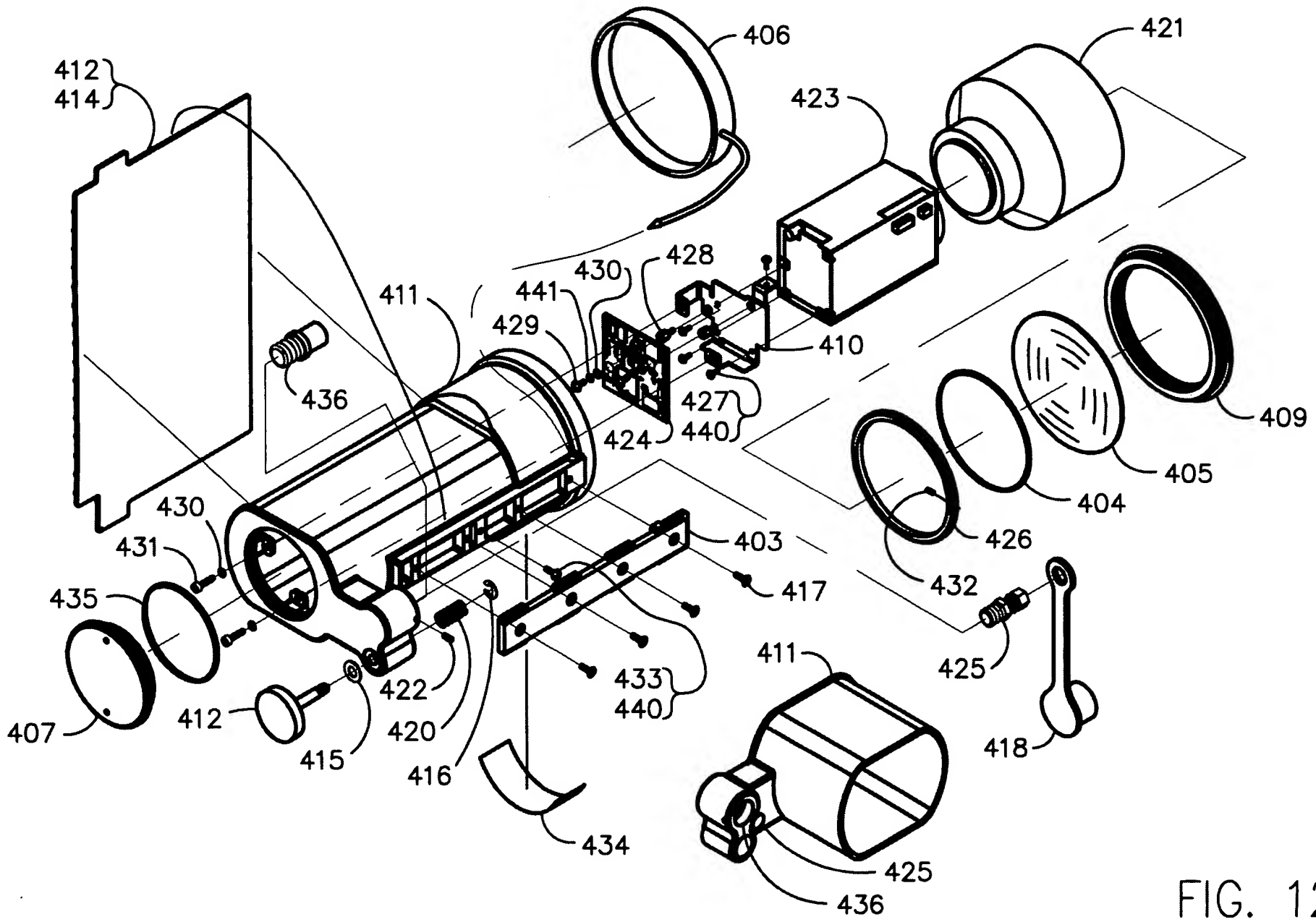


FIG. 12a

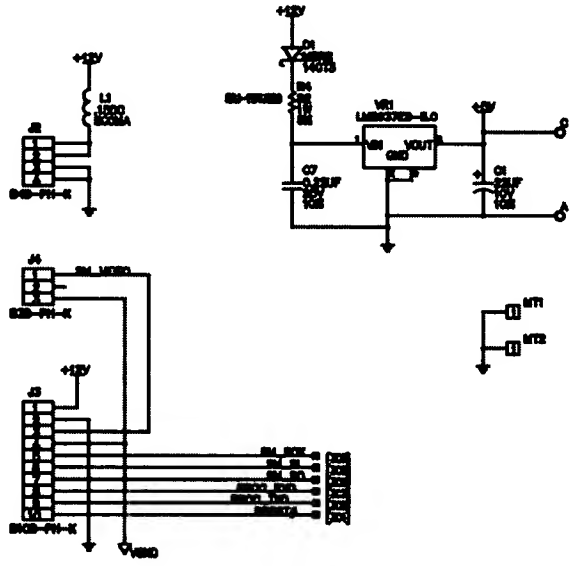


FIG. 12b

VFA INTERFACE

PhotoTelesis

SCH DIA, CONTROLLER, DAY CHANNEL

SCH-9253-001

PHOTOTELESIS CORPORATION PROPRIETARY (SEE SHEET 1)

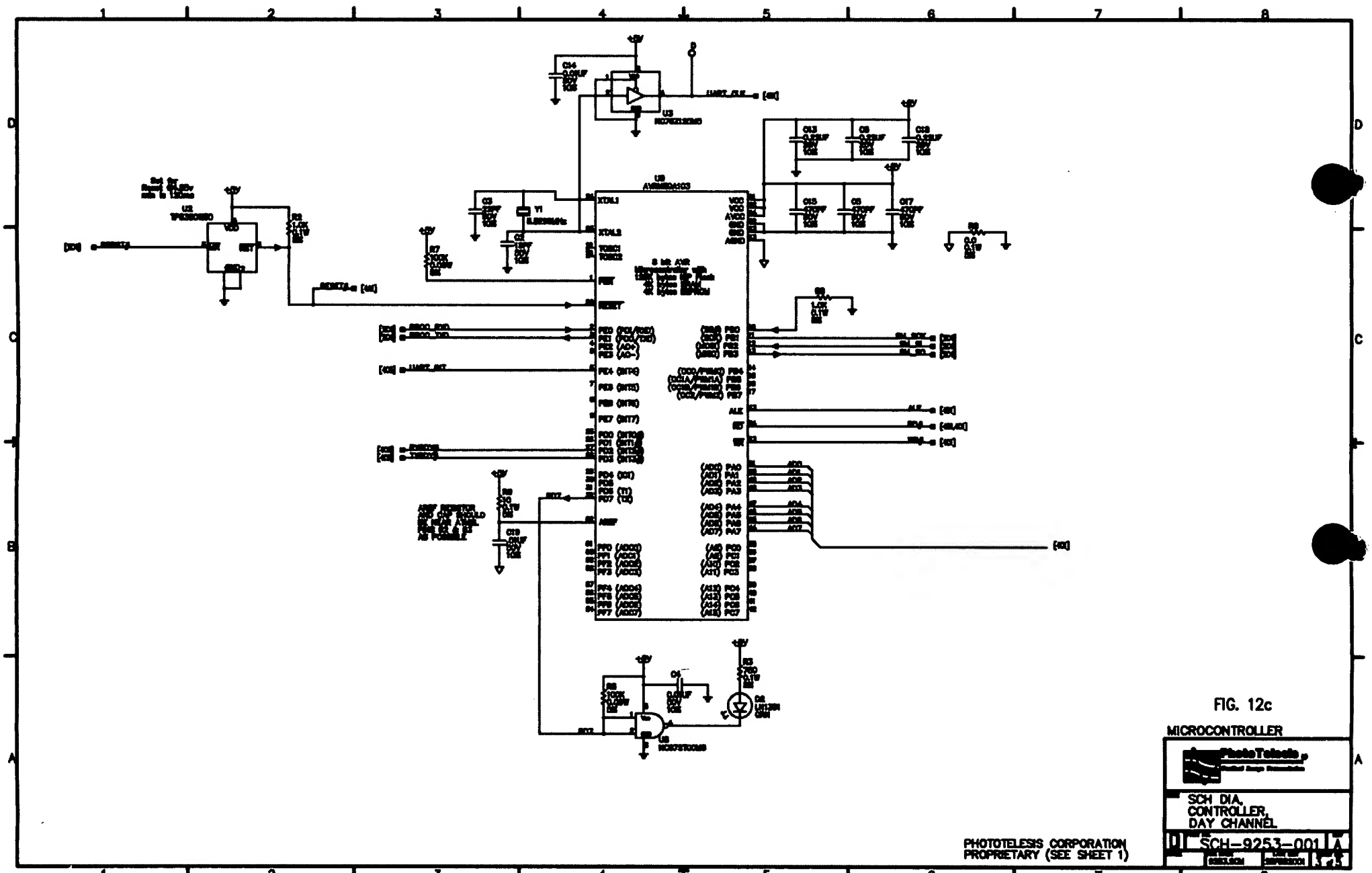


FIG. 12c

MICROCONTROLLER

PhotoTelesis

SCH DIA,
CONTROLLER,
DAY CHANNEL

SCH-9253-001 A

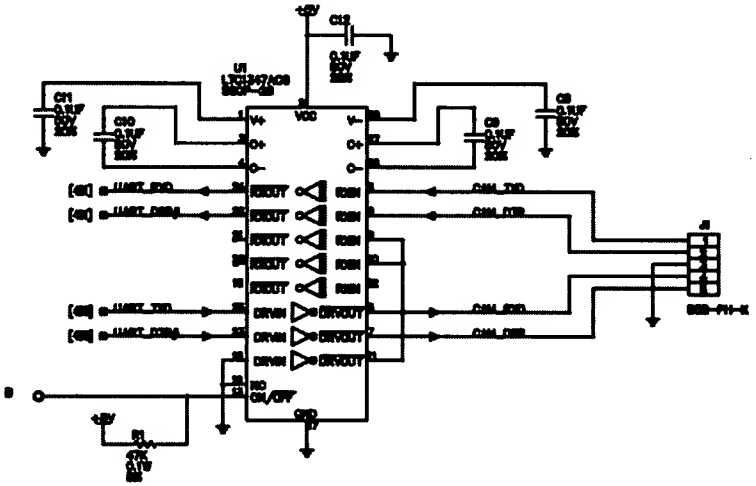


FIG. 12d

RS-232 INTERFACE

PhotoTelesis

SCH DIA,
CONTROLLER,
DAY CHANNEL

SCH-9253-001